What is claimed is:

1. A method for estimating a reticle bias state for a process system, the method comprising:

computing a difference between control data provided to the process system and error data based on at least one output of the process system, and,

estimating the reticle bias state based on weighted measures associated with the control data,

where the weighted measures are based on the number of data points included in the difference.

2. A method according to claim 1, where the weighted measures include normalized weighted measures.

3. A method according to claim 1, where the weighted measures are based on the square root of the number of data points included in the difference.

4. A method according to claim 3, where the weighted measures are multiplied by a constant factor.

5. A method according to claim 1, where estimating the reticle bias state includes normalizing the reticle bias state estimate.

6. A method according to claim 5, where normalizing the reticle bias state estimate includes normalizing based on a sum of the weighted measures.

7. A method according to claim 1, further comprising associating the reticle bias state estimate with a quality factor.

8. A method according to claim 7, where the quality factor is based on a sum of the squares of the weighted measures.

9. A method according to claim 7, where the quality factor is based on a square root of a sum of the squares of the weighted measures.

10. A method according to claim 7, further comprising comparing the associated quality factor with at least one threshold.

11. A method according to claim 10, where the at least one threshold includes at least one of:

a use threshold to determine whether to provide the reticle bias state estimate to the process system, and,

a stop-learning threshold to determine whether to continue updating the reticle bias state estimate.

12. A method according to claim 7, further comprising comparing the associated quality factor with a previously computed quality factor associated with a previously computed reticle bias state estimate, where the previously computed reticle bias state estimate corresponds to the same reticle as the associated quality factor.

13. A method according to claim 12, further comprising performing a second comparing between the associated quality factor and at least one threshold.

14. A method according to claim 13, where the at least one threshold includes at least one of:

a use threshold to determine whether to provide the reticle bias state estimate to the process system, and,

a stop-learning threshold to determine whether to continue updating the reticle bias state estimate.

15. A method according to claim 12, where based on the comparing, the previously computed quality factor associated reticle bias state estimate are updated.

16. A method, comprising:

associating a reticle bias state estimate with a first quality factor,

computing at least one weighted measure based on a number of data elements associated with the reticle,

using the at least one weighted measure to provide a computed reticle bias state estimate and an associated computed quality factor, and,

comparing the computed quality factor with the first quality factor to determine whether to update the reticle bias state estimate with the computed reticle bias state estimate.

17. A method according to claim 16, where comparing includes further comparing the computed reticle bias state estimate to a use threshold to determine whether to use the computed reticle bias state estimate.

18. A method according to claim 16, where comparing includes comparing the computed reticle bias state estimate to a stop-learning threshold.

19. A method according to claim 16, further comprising setting the first quality factor to a value to cause at least one of: an update to the reticle bias state estimate, no update to the reticle bias state estimate, and no use of the reticle bias state estimate.

20. A method according to claim 16, where comparing includes updating the first quality factor with the computed quality factor, and updating the reticle bias state estimate with the computed reticle bias state estimate, when the computed quality factor exceeds the first quality factor.

21. A method according to claim 16, where the weighted measure is based on the square root of the number of data elements associated with the reticle.

22. A method according to claim 16, where computing at least one weighted measure includes:

computing at least one weighted measure for each of different queries associated with the reticle, and,

normalizing the at least one weighted measure to provide at least one normalized weighted measure.

23. A method according to claim 22, where using the at least one weighted measure includes:

identifying a largest normalized weighted measure, and,

computing the reticle bias state estimate based on the largest normalized weighted measure.

24. A method according to claim 16, where using the at least one weighted measure to provide an associated computed quality factor includes:

computing a quality factor based on a sum of the squares of the at least one weighted measure.

25. A method according to claim 16, further comprising providing the at least one reticle bias state estimate to a process system.

26. A method according to claim 25, where the process system includes at least one of a lithography system and a microlithography system.

27. A method according to claim 25, where:

the process system includes at least one of a lithography system and a microlithography system, and the method further comprises:

measuring at least one process system error in providing a wafer to an overlay metrology system.

28. A method according to claim 27, where measuring at least one process system error includes providing measurements associated with at least one of: an x-translation, a y-translation, an x-scaling, a y-scaling, a wafer rotation, , a non-orthogonality, a reticle magnification, an asymmetric reticle magnification, a reticle rotation, and an asymmetric reticle rotation.